(Currently Amended) 1. A micro-stamp array supported on a substrate comprising:

an array of micro-stamp heads each comprising a micro-stamp-head channel opened through a central portion in each of said micro-stamps ~~sticks composed of a cured silicon rubber substantially of a same stick length extending vertically from a surface of said substrate~~;.

each of said micro-stamp heads is attached to a tapered guide tube surrounded by tapered guide-tube walls wherein said tapered guide tube is in hydraulic communication with said micro-stamp-head channel; and

a filler chip comprising a filler reservoirs disposing on top of said tapered guide tubes, each of said filler reservoirs having a refill channel opened to said tapered guide tube for refilling said tapered guide tube and said micro-stamp-head channel.

(Currently Amended) 2. The micro-stamp array of claim 1 wherein:

each of said micro-stamp-head channel is further sealed with a breakable membrane ~~sticks further comprising a micro-channel for holding a liquid sample of predefined volume provided for maintaining an air-liquid equilibrium specifically for said liquid sample held therein~~.

(Currently added) 3. The micro-stamp array of claim 1 wherein:

said array of micro-stamp-head channels in hydraulic communication with said tapered guide tube are provided to contain a liquid biological sample therein in a liquid equilibrium state ~~sticks composed of said cured silicon rubber having substantially a cylindrical shape of at least two different diameters~~.

(Currently added) 4. The micro-stamp array of claim 1 wherein:

said array of micro-stamp heads composed of a cured silicon rubber ~~sticks composed of said cured silicon rubber having at least two different sizes of cross sectional areas~~.

(Currently added) 5. The micro-stamp array of claim 1 wherein:

each of said array of micro-stamp heads having a size of ten to hundred ,micrometers in diameter ~~sticks composed of said cured silicon rubber having said substantially same stick length approximately equal to a thickness of a photoresist layer~~.

(Currently added) 6. The micro-stamp array of claim 1 wherein:

said array of tapered guide tubes are supported on a silicon substrate ~~micro-stamp sticks composed of said cured silicon rubber with said substantially same length having a shape and size defined by a plurality of openings in a photoresist layer~~.

(Currently added) 7. The micro-stamp array of claim 2 wherein:

said array of guide tubes are supported on a silicon substrate and bonded to said filler chip ~~substrate further having a plurality of micro-stamp tapered channels wherein each of said micro-stamp channels is in fluid communication with one said micro-channel in each of said micro-stamp sticks~~.

(Currently added) 8. The micro-stamp array of claim 7 wherein:

said filler chip further comprising a primary refilling reservoirs including said micro-refilling channel formed with a RIE etching and said filler chip further comprising a secondary refilling reservoirs hydraulically communicating with said micro refilling channel and said tapered guide tubes ~~each of said plurality of micro-stamp tapered channels further having a guiding tube wall for defining a channel entrance~~.

(Currently added) 9. The micro-stamp array of claim 8 wherein:

said primary refilling reservoirs are formed in a glass substrate ~~guiding tube wall further comprising a patterned platting layer for defining said channel entrance~~.

(Currently added) 10. The micro-stamp array of claim ~~7~~ 8 wherein ~~further comprising~~:

said secondary refilling reservoirs are formed in a cured silicon rubber ~~a refilling means for refilling each of said plurality of micro-stamp tapered channels wherein said refilling means further comprising a refilling reservoir and a plurality of refilling micro-channels for refilling each of said plurality of micro-stamp tapered channels from said refilling reservoir~~.

(Canceled) Claims 11- 20